'Applicant:

Title:

Steven P. Adams et al.

CELL ADHESION INHIBITORS

Application No.:

10/625,626

Filing Date: July 24, 2003 Attorney Docket No.: Examiner:

14937.0003 D2 Janet L. Coppins

1626

Art unit:

Page 2 of 6

Amendments to the claims

This listing of claims will replace all prior versions and listings of the claims.

Listing of Claims:

1. (Previously presented) A cell adhesion inhibitory compound of formula (I):

$$\begin{array}{c|c}
R_2 & O & ()_n \\
 & & \\
R_1 & & \\
 & & \\
R_3 & & (I)
\end{array}$$

or a pharmaceutically acceptable salt thereof, wherein:

X is selected from the group consisting of -CO₂H, -SO₂R₅, and -SO₃H;

Y is -CO-;

R₁ is selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkyl-substituted alkyl, cycloalkenyl-substituted cycloalkyl, alkoxy, alkenoxy, alkynoxy, alkylamino, alkenylamino, alkynylamino, N-alkylurea-substituted alkyl. alkylcarbonylamino-substituted alkyl, and aminocarbonyl-substituted alkyl;

R₂ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, and cycloalkenyl;

R₃ is selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, hydroxy-substituted alkyl, alkoxy-substituted alkyl, amino-substituted alkyl, thiol-substituted alkyl, alkylsulfonyl-substituted alkyl, (hydroxy-substituted alkylthio)-substituted alkyl, thioalkoxy-substituted alkyl, acylamino-substituted alkyl, alkylsulfonylamino-substituted alkyl, (N-(alkyl, alkenyl or alkynyl) or N,N-(dialkyl, dialkenyl, dialkynyl or (alkyl, alkenyl)-amino)carbonyl-substituted alkyl, carboxyl-substituted alkyl, and amino acid side chains selected from arginine, asparagine, glutamine, S-methyl cysteine, methionine and corresponding sulfoxide and sulfone derivatives thereof, glycine, leucine, isoleucine, allo-isoleucine, tert-leucine, norleucine, alanine, ornithine, glutamine, valine, threonine, serine, aspartic acid, beta-cyanoalanine, and allothreonine;

'Applicant:

Title:

Steven P. Adams et al.

CELL ADHESION INHIBITORS

Application No.: Filing Date:

10/625,626

July 24, 2003

Attorney Docket No.:

Examiner:

14937.0003 D2 Janet L. Coppins

Art unit:

Page 3 of 6

1626

R₄ is selected from the group consisting of alkyl, cycloalkyl, alkenyl, cycloalkenyl, and alkynyl;

R₅ is alkyl, alkenyl, cycloalkyl, cycloalkenyl, or alkynyl; and n is 0, 1 or 2.

- 2. (Original) The cell adhesion inhibitory compound according to claim 1, wherein R₁ is selected from the group consisting of cyanomethyl, cyclohexylmethyl, methyl, n-hexyl, t-butoxy, t-butylamino, 5-(N'-t-butylurea)pentyl, and 2,2-dimethylpropyl.
- 3. (Original) The cell adhesion inhibitory compound according to claim 1, wherein R₂ is hydrogen or methyl.
- 4. (Original) The cell adhesion inhibitory compound according to claim 3, wherein R₂ is hydrogen.
- 5. (Original) The cell adhesion inhibitory compound according to claim 1, wherein R₃ is selected from the group consisting of 2-(methylsulfonyl)-ethyl, 3-(hydroxy-propylthio)-methyl, 4-(methylsulfonylamino)-butyl, 4-acetylaminobutyl, aminomethyl, butyl, hydroxymethyl, isobutyl, methyl, methylthiomethyl, propyl, N,N-(methylpropargyl)-amino, 2-(methylthio)-ethyl, 2-(N,N-dimethylamino)-ethyl, 4-amino-butyl, t-butoxy-carbonylaminomethyl, sec-butyl, t-butyl, N,N-dimethyl-aminocarbonylmethyl, 1,1-ethano, 1-hydroxyethyl, 1-methoxyethyl, carbonylmethyl, 2-methylsulfinylethyl, and asparagine side-chain.
- 6. (Original) The cell adhesion inhibitory compound according to claim 5, wherein R₃ is selected from the group consisting of isobutyl, 2-(methylthio)-ethyl, 3-(hydroxypropylthio)-methyl, 2-(methylsulfonyl)-ethyl and 4-acetylamino-butyl, 4-(methylsulfonylamino)-butyl.

'Applicant:

Title:

Steven P. Adams et al.

CELL ADHESION INHIBITORS

Application No.: 10/625,626

Filing Date: July 24, 2003 Attorney Docket No.:

14937.0003 D2 Examiner: Janet L. Coppins

Art unit:

Page 4 of 6

1626

7. (Original) The cell adhesion inhibitory compound according to claim 1, wherein R₄ is methyl.

8-9. (Canceled)

- 10. (Original) The cell adhesion inhibitory compound according to claim 1, wherein n is 1.
- 11. (Previously presented) A pharmaceutical composition comprising a cell adhesion inhibitory compound of formula (I):

$$\begin{array}{c|c} R_2 & O & \begin{pmatrix} & & \\ & &$$

or a pharmaceutically acceptable salt thereof, wherein:

X is selected from the group consisting of -CO₂H, -SO₂R₅, and -SO₃H;

Y is -CO-;

R₁ is selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkyl-substituted alkyl, cycloalkenyl-substituted cycloalkyl, alkoxy, alkenoxy, alkynoxy, alkylamino, alkenylamino, alkynylamino, N-alkylurea-substituted alkyl, alkylcarbonylamino-substituted alkyl, and aminocarbonyl-substituted alkyl;

R₂ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, and cycloalkenyl;

R₃ is selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, hydroxy-substituted alkyl, alkoxy-substituted alkyl, amino-substituted alkyl, thiol-substituted alkyl, alkylsulfonyl-substituted alkyl, (hydroxy-substituted alkylthio)-substituted alkyl, thioalkoxy-substituted alkyl, acylamino-substituted alkyl, alkylsulfonylamino-substituted alkyl, (N-(alkyl, alkenyl or alkynyl) or N,N-(dialkyl, dialkenyl, Applicant:

Title:

Steven P. Adams et al.

CELL ADHESION INHIBITORS

Application No.: Filing Date:

10/625,626

July 24, 2003

Attorney Docket No.:

Examiner:

14937.0003 D2 Janet L. Coppins

1626

Art unit: Page 5 of 6

dialkynyl or (alkyl, alkenyl)-amino)carbonyl-substituted alkyl, carboxyl-substituted alkyl, and amino acid side chains selected from arginine, asparagine, glutamine, S-methyl cysteine, methionine and corresponding sulfoxide and sulfone derivatives thereof, glycine, leucine, isoleucine, allo-isoleucine, tert-leucine, norleucine, alanine, ornithine, glutamine, valine, threonine, serine, aspartic acid, beta-cyanoalanine, and allothreonine;

R₄ is selected from the group consisting of alkyl, cycloalkyl, alkenyl, cycloalkenyl, and alkynyl;

 R_5 is alkyl, alkenyl, cycloalkyl, cycloalkenyl, or alkynyl; and n is 0, 1 or 2;

in an amount effective for prevention, inhibition or suppression of cell adhesion; and a pharmaceutically acceptable carrier.

12.-15. (Canceled)